

code format. Additionally, although a wide range of microcontrollers can be used, the particular microcontroller selected for the preferred embodiment has excess capacity for additional functions which can be added if desired. For example, the microcontroller selected is capable, with the appropriate additional externals, of displaying compass directions, diagrammatically indicated at 64 in FIG. 5.

IN THE DRAWINGS

Please amend Figure 2 as indicated in the attached sketch, submitted pursuant to 37 CFR §1.173(b)(3).

Please add new Figure 5.

IN THE CLAIMS

b.k.

Please cancel claims 30, 36 and 37.

Please amend the following claims as indicated:

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Cont.
- (Twice Amended) A firearm monitoring device for [attaching to] use with a firearm, [said firearm having a firing end and a grip end, and] said firearm being susceptible to recoil in a first direction when discharged, comprising:
- a) [first means for creating a] an inertia switch configured to generate at least one first signal in response to substantially each [recoil] discharge of said firearm, said inertia switch comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
 - b) [second means for receiving each said first signal and generating] an electrical circuit configured to receive said at least one first signal generated by said inertia switch and generate a second signal indicative of the number of said firearm discharges [first electrical signals received by said second means;
- wherein said first means comprise an inertia switch comprising a movable mass; and

E1
wherein said mass is resiliently biased toward the firing end of the firearm].

E2
13. (Twice Amended) The device of claim 1, wherein the inertia switch comprises a substantially cylindrical housing and a spring.

14. (Twice Amended) A firearm in combination with a monitoring device, [said firearm having a firing end and a grip end, and] said firearm being susceptible to recoil in a first direction when discharged, said monitoring device comprising:

a) [first means for creating a] an inertia switch configured to generate at least one first signal in response to substantially each [recoil] discharge of said firearm, said inertia switch comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and

b) [second means for receiving each said first signal and generating] an electrical circuit configured to receive said at least one first signal generated by said inertia switch and generate a second signal indicative of the number of said firearm discharges [first electrical signals received by said second means;

wherein said first means comprise an inertia switch comprising a movable mass; and wherein said mass is resiliently biased toward the firing end of the firearm].

E3
Cont.
28. (Amended) A device for counting impulses, each of said impulses being in a first direction, said device comprising:

a) an inertia switch configured to generate at least one first signal in response to substantially each impulse, said inertia switch comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and

b) an electrical circuit configured to receive said at least one first signal generated by said inertia switch and generate a second signal indicative of the number of said impulses.

29. (Amended) A device for counting impulses, each of said impulses being in a first direction, said device comprising:

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- a) an inertia sensor configured to generate at least one first signal in response to substantially each impulse; and
 - b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said impulses, said electrical circuit being configured to ignore any signals generated by said inertia sensor within a predetermined time period following the generation of an initial one of a series of said first signals.

Please add the following new claims:

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Cont.
- 42. A firearm monitoring device for use with a firearm, said firearm being susceptible to recoil in a first direction when discharged, comprising:
 - a) an inertia sensor configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia sensor comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
 - b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said firearm discharges.
 - 43. The device of claim 42 comprising display means for receiving said second signal and generating a display in response to said second signal.
 - 44. The device of claim 43 wherein said display is an audible display.
 - 45. The device of claim 43, wherein said display is positioned such that it is visible to a user of the firearm while firing in a direction away from the user.
 - 46. The device of claim 42, wherein the movement of said mass is generally confined to movement along a straight line.

47. The device of claim 46, wherein said firearm includes a bore through which a round of ammunition is discharged, said straight line being generally parallel to said bore.

48. The device of claim 42, wherein said electrical circuit is configured to count down by one in response to each said firearm discharge, beginning from a predetermined number.

49. The device of claim 48, wherein said predetermined number can be changed.

50. The device of claim 42, wherein said electrical circuit is configured to maintain a total count of the number of said firearm discharges.

51. The device of claim 42, wherein said electric circuit comprises a microcontroller.

52. The device of claim 51, wherein said electrical circuit further comprises a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

53. The device of claim 42 wherein the removable mass is detached and free-floating.

54. The device of claim 42 wherein the inertia sensor comprises a substantially cylindrical housing and a spring.

55. A firearm in combination with a monitoring device, said firearm being susceptible to recoil in a first direction when discharged, said monitoring device comprising:

- a) an inertia sensor configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia sensor comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said firearm discharges.

56. The combination of claim 55, wherein said firearm includes a bore through which a round of ammunition is discharged, and the movement of said mass is generally confined to movement along a straight line generally parallel to said bore.

57. The combination of claim 55, wherein said electrical circuit is configured to count down by one in response to each said firearm discharge, beginning from a predetermined number.

58. The combination of claim 57, wherein said predetermined number can be changed.

59. The combination of claim 55, wherein said electrical circuit is configured to maintain a total count of the number of said firearm discharges.

60. The combination of claim 55, wherein said electric circuit comprises a microcontroller.

61. The combination of claim 60, wherein said electrical circuit further comprises a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

62. The combination of claim 55, wherein the movable mass is detached and free-floating.

63. A firearm monitoring device for use with a firearm, said firearm being susceptible to recoil in a first direction when discharged, comprising:

- a) an inertia switch configured to generate at least one first signal in response to substantially each discharge of said firearm; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia switch and generate a second signal indicative of the number of firearm discharges, [said electrical circuit configured to ignore any signals generated by said inertia switch within a predetermined time period following the generation of an initial one of a series of said first signals.]

64. The device of claim 63, wherein said inertia switch comprises a moveable mass resiliently biased in a direction substantially opposite said first direction.

65. The device of claim 63, wherein said inertia sensor is an accelerometer.

66. The device of claim 63 in combination with said firearm.

67. A device for counting impulses, each of said impulses being in a first direction, said device comprising:

- a) an inertia sensor comprising a moveable mass subjected to resilient bias in a direction substantially opposite said first direction, said sensor being configured to generate at least one first signal in response to substantially each impulse as a result of movement of said mass in opposition to said resilient bias; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said impulses.

Status of Claims

Prior to this amendment, claims 1-41 were pending in this application. This Amendment cancels claims 30, 36 and 37, amends claims 1, 13, 14, 28 and 29, and adds new claims 42-67. After this amendment is entered, claims 1-29, 31-35 and 38-67 are pending in this application.

Support For Claim Changes Pursuant To 37 CFR § 1.173(c)

A thorough reading of the patent disclosure and application reveals that support for the changes to the claims as well as the new claims is found throughout. The following reference list of more specific support is not intended to be necessarily all inclusive. (All references to lines below are based on actual line count.)

Claim 1: Support for the changes to claim 1 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 38-39; originally submitted claim 7; issued claim 1.

Claim 14: Support for the changes to claim 14 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 38-39; originally submitted claim 7; issued claim 14.

Claim 28: Support for claim 28 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 5-11; column 7, lines 38-39.

Claim 29: Support for claim 29 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 15-17; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 5-11; column 7, lines 38-39.

Claim 42: Support for claim 42 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 38-39; originally submitted claim 7; issued claim 1.

Claim 43: Support for claim 43 can be found at least at column 5, lines 18-32; issued claim 2.

Claim 44: Support for claim 44 can be found at least at column 2, lines 24-27; column 5, line 30; issued claim 3.

Claim 45: Support for claim 45 can be found at least at column 5, lines 5-7; issued claim 4.

Claim 46: Support for claim 46 can be found at least at column 3, lines 53-57; originally filed claim 5; issued claim 5.

Claim 47: Support for claim 47 can be found at least at column 3, lines 55-57; originally filed claim 6; issued claim 6.

Claim 48: Support for claim 48 can be found at least at column 5, lines 40-47; originally filed claim 8; issued claim 7.

Claim 49: Support for claim 49 can be found at least at column 4, lines 40-53; issued claim 8.

Claim 50: Support for claim 50 can be found at least at column 5, lines 66-67; issued claim 9.

Claim 51: Support for claim 51 can be found at least at column 3, line 37; issued claim 10.

Claim 52: Support for claim 52 can be found at least at column 5, lines 32-35 and at column 6, lines 26-32; issued claim 11.

Claim 53: Support for claim 53 can be found at least at column 3, line 50 through column 4, line 2; issued claim 12.

Claim 54: Support for claim 54 can be found at least at column 3, line 50 through column 4, line 2; issued claim 13.

Claim 55: Support for claim 55 can be found at least at column 3, lines 40-47; column 3, lines 55-64; column 5, lines 8-14; column 5, lines 16-18; column 7, lines 38-39; originally submitted claim 7; issued claim 14.

Claim 56: Support for claim 56 can be found at least at column 3, lines 55-57; originally filed claim 6; issued claim 15.

Claim 57: Support for claim 57 can be found at least at column 5, lines 40-47; originally filed claim 8; issued claim 16.

Claim 58: Support for claim 58 can be found at least at column 4, lines 40-53; issued claim 17.

Claim 59: Support for claim 59 can be found at least at column 5, lines 66-67; issued claim 18.

Claim 60: Support for claim 60 can be found at least at column 3, line 37; issued claim 19.

Claim 61: Support for claim 61 can be found at least at column 5, lines 32-35; column 6, lines 26-32; issued claim 20.

Claim 62: Support for claim 62 can be found at least at column 3, line 50 through column 4, line 2; issued claim 21.